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Human Rights and Scientific and Technological Developments

Report of the Secretary-General

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INTRODUCTION

1. The General Assembly, by its resolution 2450 (XXIII) of 18 December 1968, invited the Secretary-General to undertake a study of "the balance which should be established between scientific and technological progress and the intellectual, spiritual, cultural and moral advancement of humanity". The Secretary-General inquired whether Governments wished to contribute views or studies to the writing of the report. Appropriate enquiries were also sent to the relevant specialized agencies, non-governmental organizations as well as to the eminent experts on this problem. In addition, a meeting of eminent international experts was convened by the Secretary-General at Geneva from 15 to 19 September 1975, to discuss the topic. The group of experts adopted a statement. Several aspects of this statement were referred to in various chapters of the Secretary-General's report (E/CN.4/1199). The Secretariat, however, as mentioned in the Secretary-General's Report */"does not necessarily endorse every aspect of the statement". This statement can be found in full, in annex 1 to this report.

2. The Commission on Human Rights, at its fortieth session, adopted resolution 1984/30 of 12 March 1984. In this resolution, the Commission, stressing the need to keep the promotion and protection of human rights under constant review in the light of the rapidity of scientific and technological developments and taking into account the recommendations of the international experts set forth in the Secretary-General's report (E/CN.4/1199), decided to consider the implications of the topics indicated in the recommendations of the international experts at its forty-second session. The Commission requested the Secretary-General to invite Member States of the United Nations, United Nations bodies and specialized agencies to submit their views and comments on the recommendations of the international experts.

3. Consequently, on 26 June 1984, a note verbale and a letter were sent to Member States and to United Nations bodies and specialized agencies respectively, drawing attention to resolution 1984/30.

4. As at 15 November 1985, replies had been received from the Governments of Barbados, Byelorussian Soviet Socialist Republic, Cyprus, Democratic Republic of Madagascar, Germany, Federal Republic of, Paraguay, Union of Soviet Socialist Republics, United Kingdom of Great Britain and Northern Ireland and Venezuela. Replies had also been received from the following United Nations bodies and specialized agencies: International Fund for Agricultural Development, The World Bank, United Nations Environment Programme and the United Nations Industrial Development Organization.

5. The sumamry of replies received can be found in sections II and III respectively. **/

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*/ E/CN.4/1199, para.4.

**/ The full text of these replies are available for consultation in the files of the United Nations secretariat at Geneva.

II. Replies received from Member States of the United Nations

Barbados

[Original: English]
[2 January 1985]

The Government of Barbados stated that while Barbados was in full accord with the drafting of a declaration on Human Rights and Scientific and Technological Developments its research capabilities in the area of Science and Technology had been so limited as not to make any impact in human rights in any significant way.

Byelorussian Soviet Socialist Republic

[Original: Russian]
[7 February 1985]

The impressive achievements of science and technology would even now enable peoples to open a new chapter in their history and to proceed to the definitive solution of such problems as hunger, disease, poverty and the elimination of economic backwardness. And humanity would make considerable progress in solving these and other vitally important problems if the achievements of man's genius were used exclusively for his benefit.

The colossal destructive force of the arms already stockpiled constitutes a global danger threatening not only particular countries and peoples but also all of mankind. The very existence of the Earth's civilization, life itself on our planet, is at stake. Nevertheless, buildup of means of mass destruction is continuing and increasingly sophisticated and deadly weapons are being created.

The implementation of new military programmes is inseparably connected with the propounding of aggressive concepts and doctrines - "nuclear first strike", "limited nuclear war", "protracted nuclear conflict", etc. All of these doctrines are based on the calculation that it would be possible to be the first to use nuclear weapons and win a nuclear war.

To construct one's policy on the prospect of nuclear war and of victory in such a war is a criminal gamble with the life of each and every human being. It is vitally necessary to outlaw the use and threat of use of nuclear weapons and to destroy these weapons before they destroy life on Earth.

Throughout the post-war period, from the very appearance of atomic weapons, the Soviet Union has persistently sought an approach to the cessation of the nuclear arms race. An eloquent manifestation of this policy is the assumption by the Soviet Union of the obligation not to be the first to use nuclear weapons. This solemn obligation has become a historic landmark in the struggle for prevention of nuclear catastrophe, outlawing of nuclear weapons, cessation of production and gradual reduction of stocks of such weapons down to their complete elimination, and thus for nuclear disarmament. If the other nuclear powers follow the example of the USSR, if they assume the same obligation, that would in practice be equivalent to the prohibition of the use of nuclear weapons and would become an important guarantee of implementation of the right to life.

Apart from the direct danger of nuclear catastrophe, the arms race represents a useless waste of gigantic material resources. Hundreds of billions of dollars are being spent for military purposes. This senseless and unprecedented squandering of wealth is taking place in a world in which every third person lacks elementary medical care, every fifth person is illiterate and every sixth person is undernurished, one in which millions of people die of hunger every year and many millions more suffer from unemployment and inflation. The resources being swallowed up by the arms race should be used not for the purpose of making weapons to kill people but in the interests of solving social and economic problems, of improving the well-being of peoples. The peoples of all countries, including of course the developing countries, would have everything to gain from the rechannelling of these resources of peaceful ends. Indeed, it would open the prospect of allocating considerably more substantial funds than at present to assistance in eliminating the backwardness inherited by these countries from colonial times.

The question of preserving peace, preventing nuclear catastrophe and ensuring the right to life is the key question for first testing a Government's real attitude to human rights. One cannot preach human rights and at the same time proceed on the premise that it is acceptable to destroy hundreds of millions of human beings, all human civilization, in the fires of a nuclear conflagration. Respect for human rights and planning for nuclear war, intensifying the danger of war, are incompatible and mutually exclusive.

We are convinced that no contradictions between States or groups of States, no differences in social structure, way of life or ideology, no immediate interests can overshadow the fundamental need, common to all peoples, to preserve peace and prevent nuclear war.

The most important task of the United Nations is to save our planet from the danger threatening it, and to ensure the right of people to life. The present alarming situation in the world dictates the need for mobilizing all efforts to achieve real results in the limitation of the arms race, prevent the danger of war and establish political and international-law guarantees for ensuring the right to life. It is in this main direction that the efforts of all United Nations bodies, including those concerned with human rights questions, must be concentrated. We believe it to be their duty to contribute to the struggle for the survival of mankind, for implementation of the right to life.

As one of the initiators of the adoption of the 1975 Declaration on the Use of Scientific and Technological Progress in the Interests of Peace and for the Benefit of Mankind, and of a whole series of resolutions of the General Assembly and the Commission on Human Rights on the question of human rights and scientific and technological progress, the Byelorussian SSR believes that these most important decisions must be fully implemented by all States.

The provisions of these documents are consistently put into practice in our Republic. The Constitutions of the USSR and the Byelorussian SSR contain provisions offering the citizens of Byelorussia broad opportunities to come out in defence of the right to life, in defence of peace, as is shown by the extensive anti-war demonstrations of citizens of the Republic, who unswervingly support the efforts of the Soviet State to remove the threat of nuclear catastrophe hanging over mankind through the fault of imperialism and to ensure that the results of scientific and technological progress are used exclusively in the interests of

international peace and for the benefit of mankind, for the economic, social and cultural development and improvement of the well-being of the people. Under the planned socialist system of our country, such a social evil as unemployment has long been done away with, having been eliminated more than 50 years ago. The citizens of the Byelorussian SSR have the right to work, including the right to choose their occupation, type of employment and labour in accordance with their calling, capabilities, vocational training, education, etc.

The tasks of improving the conditions and protection of labour, its scientific organization, the reduction and complete elimination of strenuous physical work on the basis of the integrated mechanization and automation of production processes in all branches of the economy, i.e. on the basis of the expansion of scientific and technological progress, have also been assumed by the State, and all of these provisions are enshrined in the Constitution.

Wide sectors of the population participate most actively in the acceleration of scientific and technological progress. Nearly 400,000 people are members of voluntary scientific and technological associations, and the voluntary society of inventors and rationalizers has more than 350,000 members. This process is inseparably linked to the intensification and expansion of the system of education, the right to which is laid down in the Constitution of the Byelorussian SSR.

Of the nearly 10 million inhabitants of the Republic, four million are engaged in some kind of study.

In socialist society the results of scientific and technological progress are organically combined with the advantages of the socialist structure, which in turn opens up extremely favourable prospects for the progressive development of society and the full development of the individual's potential. In our country everything is done to ensure that results of scientific and technological progress contribute to peace and the well-being of man, and promote the implementation of human rights. Article 15 of the Constitution of the Byelorussian SSR clearly defines as the supreme goal and social objective of social production "... the fullest possible satisfaction of the people's growing material and intellectual requirements". It is under such conditions that scientific and technological progress endows man with broader economic, political, social and cultural rights, and this inevitably leads to the all-round development of the individual, combining his personal interests with those of society. Since man is the creator of scientific and technological progress, the achievements of science and technology must be fully utilized for man in the interests of society as a whole.

A very important provision of the Declaration is that pertaining to the need for measures to extend the benefits of science and technology to all strata of the population and to protect them, both socially and materially, from possible harmful effects of the misuse of scientific and technological developments. The timeliness of this provision of the Declaration is particularly striking in those western countries in which a system of total surveillance and interference in private life has been established and is being expanded with the use of scientific and technical equipment.

In our Republic, the inviolability and respect of the person, the preservation of the rights and freedoms of citizens, of the right to judicial protection from encroachments on their honour and dignity, life and health, on their personal freedom and property are constitutionally enshrined and guaranteed. What is more, under article 54 of the Constitution of the Byelorussian SSR, the privacy of citizens and of their correspondence, telephone conversations and telegraphic communications is protected by law.

These constitutional measures completely exclude any possible infringement of the rights both of individual persons and groups of persons with or without the use of scientific and technological equipment.

Considering the Declaration as an important instrument showing how to utilize the achievements of scientific and technological progress in the interests of peace and for the benefit of mankind, the delegation of the Byelorussian SSR sponsored resolution 1984/29, adopted by the Commission on Human Rights at its fortieth session, which instructs the Sub-Commission on Prevention of Discrimination and Protection of Minorities to prepare a study on the use of the achievements of scientific and technological progress to ensure the right to work and development. Such a study will be of practical importance both to developing and to developed countries and will promote implementation of the provisions of the Declaration.

The efforts of the international community at this time must be aimed at saving our planet from the danger of thermonuclear war, at preserving peace and thereby ensuring the right of all peoples and individuals to life.

Cyprus

[Original: English]
[10 January 1985]

Paragraph 5 of the report of the Secretary-General recommends that consideration be given to the possibility of drafting a declaration on human rights and scientific and technological developments.

Since the Cyprus Government firmly believes that technology - one of the main engines of economic progress and modernization should only be used for the benefit of mankind and not for destructive purposes - it strongly recommends the drafting of such a declaration. Furthermore, it suggests the inclusion in the declaration of the topic of population planning in relation to the right to found a family.

Democratic Republic of Madagascar

[Original: French]

[15 November 1984]

There are no limits to progress and man's exploitation of nature offers him many good prospects for the future.

Scientific and technological advances are, without any doubt, the most important factors in the development of human society because of the contribution they can make to improve living conditions for peoples and nations.

Scientific and technological results are, unfortunately, not always wisely or properly used. Some countries deliberately use such results for military purposes with the evil intention of restricting and even depriving individuals and peoples of their most basic and natural rights and their fundamental freedoms.

The Democratic Republic of Madagascar has the honour to draw your attention to the way in which resolution 1984/30 is being implemented at the local level.

The relevant information available to it at the regional and international levels nevertheless calls for a few comments.

In the first place, the adoption by the General Assembly of the United Nations of resolution 3384 (XXX) in 1975 took place at the same time as the birth of the Malagasy Socialist Revolution and of the Democratic Republic of Madagascar.

> "The Malagasy Socialist Revolution aspires to build a new and more equitable society in which any form of man's exploitation of man and any form of oppression and domination will be prohibited.
>
> It intends to combat hunger, ignorance, illness and injustice.
>
> It also intends to guarantee the autonomous, balanced and harmonious economic, social, cultural and spiritual development of the Malagasy people.
>
> We are, however, convinced that only the socialist road to development can rapidly lead us to progress for all, to hope for a better and more decent life and to the happiness to which the Malagasy people is entitled."

These excerpts from the Charter of the Malagasy Socialist Revolution reflect the general policy of the Democratic Republic of Madagascar, one of the main objectives of which is balanced and harmonious economic, social and cultural development.

However, the practical application and implementation of this policy mean, inter alia, that scientific and technological developments have to be properly used and mastered by the people. Our Red Book states, for example that: "As a people becomes technologically and politically more developed, it acquires more technology and gains greater mastery of itself and nature, using its productive forces to guarantee its own progress and development".

With the establishment in October 1983 of a full Ministry of Scientific and Technological Research for Development (MSTRD), Madagascar showed that it intended to enter the era of technological advances.

Article 1 of Decree No. 84/074 of 15 February 1984 on the establishment, organization and attributions of this Ministry specifies that it "shall be responsible for promoting scientific and technological research for development and, for this purpose, shall co-ordinate the scientific and technological activities of agencies which use Governments funds, either in whole or in part, and which include centres, laboratories and institutions with financial autonomy, as well as ministerial departments".

Since man is the focus of the Malagasy Socialist Revolution, it is only logical that the Malagasy people, i.e. the peasant masses forming 85 per cent of the population, should be the main beneficiaries of scientific and technological developments.

The Malagasy Government's priority objective is, obviously, to raise the standard of living of the working classes (peasants, workers).

Since it is aware of the key role of science and technology in the development of rural areas and the gradual transformation of society, the Malagasy State, through its Ministry of Scientific and Technological Research for Development, is endeavouring to make the objectives set by the General Planning Department and other ministerial departments part of integrated development research programmes (IDRP).

Although scientific and technological developments are the basis for the economic, social and cultural development of any society, their use must, in the opinion of the Democratic Republic of Madagascar, not restrict or hinder the exercise of human rights and fundamental freedoms. Such rights and freedoms are, moreover, recognized and guaranteed by the Malagasy Constitution of 1975.

Article 15 of the Constitution provides that: "The exercise of the rights and freedoms recognized by the Constitution and the law shall be guaranteed to every citizen who works for the Revolution and for the triumph of a socialist society".

It is thus out of the question for the Malagasy State to use scientific and technological advances to jeopardize the rights of individuals or groups, particularly with regard to respect for privacy and the protection of the human person and his physical and intellectual integrity.

With regard to international relations, the policies of the Democratic Republic of Madagascar are clearly defined by the Charter. Madagascar supports and militates in favour of the universally recognized principles embodied in the Charter of the United Nations, such as territorial integrity, national unity and non-interference in the internal affairs of other States. It fully endorses the objectives of the OAU, as well as the principles of non-alignment and positive neutrality.

The use of the achievements and results of science and technology for the purpose of jeopardizing the sovereignty and territorial integrity of other States or interfering in their internal affairs is thus contrary to the approach of the Democratic Republic of Madagascar.

As an island country, Madagascar promotes international co-operation to ensure that scientific and technological developments will be used to strengthen peace, international security, freedom and independence.

This desire for international co-operation is unfortunately hindered by the shameful practice of some countries which do not hesitate to make the transfer of technology subject to unfair conditions for beneficiary countries. This is all the more serious in that scientific and technological developments are being used to the detriment of peace and mankind.

The Malagasy State thus shares the view of the group of the Commission on Human Rights concerning the possibility of formulating a declaration on human rights and scientific and technological developments.

In the opinion of the Democratic Republic of Madagascar, international co-operation in this area is a priority task of all peace-loving and justice-loving nations. Such co-operation can play an important role in placing in their proper perspective the technological advances which are best suited to the economic, social and cultural context of various countries and to the intellectual, spiritual and moral aspirations of every individual.

In short, the Democratic Republic of Madagascar supports any initiative to encourage international scientific and technological co-operation for the promotion of knowledge, the strengthening of research and training and the promotion of transfers of knowledge and know-how.

The Democratic Republic of Madagascar fully supports the formulation and adoption in all countries of training, research and implementation policies and programmes, as well as greater understanding of the social, cultural, intellectual, spiritual and moral consequences of the introduction and development of science and technology.

Federal Republic of Germany

[Original: English]

[15 Janauary 1985]

The statement of the group of experts who discussed the subject "The balance which should be established between scientific and technological progress and the intellectual, spiritual, cultural and moral advancement of humanity" in Geneva from 15 to 19 September 1975 is objective and aptly sketches the relationship between scientific and technological progress and the intellectual, spiritual, cultural and moral advancement of humanity.

The statement points to the dangers for basic individual human rights, which could arise from scientific and technological progress. However, not all the dangers for humanity which may arise from scientific and cultural progress can be classified as "dangers for human rights", as suggested by the statement.

The subjects dealt with by the group of experts were evidently far more comprehensive than those which could be characterized by the term "human rights". They also dealt with the influence of scientific and technological progress on

individual human rights and with the global challenges to and dangers for humanity, e.g. the misuse of atomic energy, arms build-up, hunger, and destruction of the environment are not to be equated with the effects thereof for individual human rights. These global dangers should therefore not be discussed and dealt with by the Commission on Human Rights. The Commission on Human Rights would thus be even more overworked and would be interfering in the affairs of other United Nations bodies. The United Nations Commission on Human Rights should concentrate on problems and the solution thereof which result from the effects of scientific and technological progress on physical, mental and spiritual integrity, on dignity and freedom for individuals.

Concerning the proposal for a declaration on "human rights and scientific and technological development", the human rights contained in the International Covenant on Civil and Political Rights should first be examined to see whether these do not constitute sufficient and technological progress. The field of human rights is characterized more by a lack of implementation than by a lack of legal norms. What is important basically is to improve the instruments for implementation and thereby provide greater protection for human rights.

In this connection, it must be ensured that the institution of "human rights" will not, by the inclusion of global dangers for humanity, be expanded to a point of endangering what has already been attained in the field of human rights protection.

With regard to the creation of a new international institution to deal with questions as to what extent negative influences on human rights protection should be tolerated in order to enjoy the benefits of scientific and technological progress we would refer to existing United Nations bodies (Commission on Human Rights and the Human Rights Committee). The strengthening and optimal efficiency of these bodies must be the aim of the human rights discussion and activities.

Another recommendation of the group of experts to arrive at an improved definition of the duties of the individual towards society and the rights of future generations exceeds the scope of human rights.

Individual questions

Paragraph 5, page 4 of E/CN.4/1199 contains the recommendation of the group of experts according to which any possible declaration on human rights and scientific and technological developments should, in addition to other points, deal in particular with:

"protection against the hazards of the use of atomic energy".

This may have appeared reasonable in 1975, but experience gained since then has shown that the dangers involved in the utilization of nuclear energy are not among the most urgent problems of environmental protection.

For this reason, should the proposal for such a declaration be further discussed, the more general problem of

"protection against the hazards of industrial technology and environmental pollution"

should be dealt with instead of a one-sided treatment of nuclear energy.

Scientific and technological progress and evolution of human rights

Scientific and technological progress have laid highly important foundations for the realization of human rights. The technological utilization of energy, modern methods of agriculture, progress in medicine, and modern systems of transportation and communications have provided mankind with effective instruments to fight against hunger, disease and poverty. Existence involving human dignity and freedom, common international responsibility and the preservation of peace is no longer conceivable without the benefits of modern technology. Recent developments in communications technology, electronic data processing, micro-computers and biotechnology promise further progress which can be taken advantage of for the realization of human rights.

Nevertheless, the fact cannot be ignored that technological developments have and will no doubt continue to have consequences which affect respect for human rights. Scientific and public discussion point to the dangers for human health which arise from the pollution of air, water and soil by the production of energy and industrial goods and by road and air transport. Unrestricted progress in medicine causes questions to arise as to the integrity and human dignity of the physically and mentally ill; computer systems require carefully designed measures to ensure the protection of personal and industrial data; biotechnology must be regulated to ensure against the negative effects of a manipulation of human genes, to name but a few problems. Scientific and technological progress is neither of intrinsic value nor to be evaluated externally, but is to be judged according to the contributions it is able to make for the well-being and dignity of the individual, for freedom and the peaceful community of nations. The Government of the Federal Republic of Germany therefore promotes scientific research into the aims and effects of technological progress and new technologies at the national, bilateral and international level. It supports the continuation of projects of the sub-commission aimed at providing the individual with effective protection against the negative side effects of scientific and technological developments.

Protection of marriage and the family, family planning

The Federal Republic of Germany has a social legal order, based on the freedom of the individual, which provides special protection for marriage and the family. Couples may decide freely about the number and time of birth of their offspring.

None the less, Government and State are not hindered in pursuing family planning policies; the Government of the Federal Republic of Germany has up to now not formulated any such policies.

Measures for family planning must not, however, infringe on the right of couples to decide on the number and time of birth of their offspring.

The right to decide freely as to the number and time of birth of offspring has been internationally recognized. It was declared a human right at the International Conference on Human Rights at Teheran in 1968.

The World Population Plan of Action passed at the World Population Conference of 1974 at Bucharest expressly supported this "basic right". The International Conference on Population held at Mexico City in August 1984 confirmed the full validity of the aims and principles of the World Population Plan of Action and once again reaffirmed this "basic human right" in the Mexico City Declaration on Population Development passed at the Conference.

Reference was also made to the comments of the Government of the Federal Republic of Germany of July 1975, submitted pursuant to the Secretary-General's request of 27 March 1985.

Paraguay

[Original: Spanish]

[20 December 1984]

Framework of the development policy

Paraguay's national development policy is based on priorities which include the encouragement of agricultural, forestry and agro-industrial activities, export promotion and the gradual substitution of imported manufactures. The aim is thus to promote peaceful development and progress in the social, economic and cultural spheres.

The programmes of the Government's specialized agencies are based on the National Economic and Social Development Plan formulated by the Technical Planning Secretariat of the Office of the President of the Republic and their main objectives are to integrate and co-ordinate the public and private sectors in order to give the country fresh economic and social impetus.

In terms of economic objectives, the aim is to accelerate the growth rate of national income by enhancing national capital formation and consolidation, encouraging the rational exploitation of natural resources and promoting foreign capital investments in productive activities.

Social objectives include that of increasing employment as a means of ensuring the welfare of the people and consolidating social peace, as well as that of improving income distribution as a means of offering the population better opportunities to benefit from development.

There is no doubt that the country's development depends on the Itaipú and Yacyretá hydroelectric projects, which had a noticeable impact and produced social and economic benefits for the country as soon as construction work began.

Half the electric power produced by the two dams will belong to Paraguay, which will thus have energy surpluses that will be used according to the country's social and economic dimensions and its level of industrial development in the coming years.

It should be noted that the Government plays a regulatory role through incentives such as loans, taxes and measures to promote industrial development.

Act No. 550 on the promotion of investments in Paraguay has been a decisive factor for the incorporation of capital in the national economy: 1,365 investment projects amounting to about $700 million have been implemented in the past decade and, according to official information, some 45,000 jobs have been created for the country's labour force.

Incorporation of science and technology in the development model and development strategies

Paraguay began to give particular consideration to the scientific and technological factor in about the mid-1970s, when it had the possibility of development based on the experience of other countries in the region and on the use of mechanisms suited to its dimensions and its own level of social and economic development.

One particular point of interest is the policy of not setting up any new institutional or instrumental bodies, which might have been redundant or counter-productive. Thus, responsibility for dealing with the scientific and technological variable was assigned to an existing body, the National Institute of Technology and Standardization (INTN), which became the National Technology Secretariat (Decree No. 20.351 of 26 January 1976) and was entrusted with the planning, formulation, co-ordination and evaluation of scientific and technological development programmes based on the guidelines contained in the National Economic and Social Development Plan. The co-ordination of specific activities was thus assigned to a sectoral body entrusted with industrial research and development tasks, as well as other promotion and assistance functions (information, quality control and metrology). These combined functions created more direct ties with the public and private sectors involved in scientific and technological activities in the country.

The first important task undertaken was the formulation of the first National Scientific and Technological Development Programme, which was intended to bring the country's scientific and technological policies into line with its economic and social policies.

The Programme sponsored activities to make Government agencies and scientific and technological sectors and enterprises aware of the problem and impact of the scientific and technological factor on development through the organization of seminars, conferences and courses, with particular emphasis on the need for more far-reaching in-depth co-ordination activities.

The first Programme may be considered to have achieved partial results, for, although it was formulated on the basis of joint efforts, the necessary conditions were not created for sustained follow-up.

Despite such limitations, the instrument for scientific and technological budget programming was prepared and strengthened in 1980 when the science and technology heading was included in Paraguay's national budget.

The provision of technical services by INTN and other bodies in the public sector was one of the most effective, although indirect, means of ensuring ongoing programme co-ordination.

With regard to international co-operation under technical co-operation treaties and agreements with research and development institutes, the less developed Latin American countries held a regional seminar on technological development strategies in 1983 under the auspices of INTN and OAS. The seminar was an excellent opportunity for exchanges of experience by the participating countries and its conclusions and recommendations, which reflected the participants' spirit of co-operation, were duly communicated to Governments and the relevant international bodies; they may be translated into specific action with a view to better understanding and the more effective use of the scientific and technological factor in Latin America.

The activities in question are intended for the formulation of the second National Scientific and Technological Development Plan, which will cover the period 1985-1989 and should involve fuller participation on the basis of the experience gained by the National Technology Secretariat, as well as greater awareness of the components of the scientific and technological sector. In this connection, sectoral working groups have been set up in areas identified as being of high priority for nationa development; they are composed of representatives of Government Ministries, universities and public and private entities and enterprises. The aim of the working groups on agro-industry, energy, technological enterprise management, bio-medical research and information and scientific and technological documentation is to agree on the definition of priority objectives, policies, strategies and programmes in each area and to bring them into line with the National Economic and Social Development Plan. In future, such groups will become permanent advisory and evaluation committees.

Conclusions

In general terms, it may be said that Paraguay has the necessary legal and institutional instruments to promote social and economic development and to enable its inhabitants to benefit therefrom.

Machinery for the implementation of socio-economic plans and scientific and technological programmes must, however, be strengthened. The process of bringing scientific and technological aspects into line with other Government policies on the basis of the experience gained by INTN, which has become the National Technology Secretariat, has been going on slowly and gradually as institutions have gained greater knowledge of means of including the scientific and technological factor in their specific programmes. Account has to be taken of the fact that most of the other sectoral bodies are traditional ones that are quite well established, so that considerable efforts have to be made to persuade them to bring their decisions into line with the requirements of the current scientific and technological situation.

It may also be noted that an orderly progression has been followed in which the various stages have been reached as and when the means to do so have become available. The global strategy has nearly always been based on persuasion and demonstration, rather than on rules, as well as on the belief that the central body can assume greater responsibilities and functions as it becomes stronger, depending on how its activities are viewed by other State agencies and the private sector.

Union of Soviet Socialist Republics

[Original: Russian]
[13 February 1985]

As one of the most important factors of the development of human society, scientific and technological progress must serve to strengthen international peace and security and to improve the living conditions of individuals and peoples. The development of science and technology is opening up new horizons of knowledge and is making possible the acquisition of previously undreamed-of vast sources of energy, the conquest of outer space and the exploitation of the depths and resources of the seven seas. The scientific and technological revolution now under way offers mankind powerful means for solving global problems, eliminating hunger, disease, poverty and illiteracy, and overcoming economic backwardness.

Mankind would make considerably more headway in solving these and other vitally important problems if the achievements of man's genius were used exclusively for his benefit.

However, there are still highly influential forces in the world which are interested in directing the development of scientific and technological progress along another path, the path of the nuclear arms race and nuclear superiority.

It is their fault that mankind is now undergoing the most severe test in its history. Misuse of the fruits of modern science makes it practically possible to destroy not only all the achievements of civilization but also the very existence of life on Earth. There are tens of thousands of warheads stockpiled in the world, whose total power is more than a million times greater than that of the atomic bomb dropped on Hiroshima.

The efforts of science and technology are now also being directed to making outer space a springboard for preparing and unleashing nuclear war. Attempts are being made to create an irreversible process of transforming outer space into an arena of military rivalry.

In addition to the threatened use of nuclear weapons there is also a growing danger of the utilization of biological achievements - genetic engineering. Just as nuclear weapons are capable on a world scale of irreversibly altering the physical environment for man's survival, so molecular biology and genetic engineering can basically alter the established system of transmission of hereditary characteristics, which is responsible for evolution and the very existence of life and intelligence on our planet. With its experience in the struggle against the threat of use of nuclear weapons, mankind must not allow itself to fall into a new ambush or into the still unknown traps which may be produced as by-products of scientific progress.

Nor must it be forgotten that arsenals are accumulating such means of mass destruction as chemical weapons. Only a few kilogrammes of the already stockpiled tens of thousands of tons of poisonous substances are enough to kill millions of people. New programmes for producing still more perfected types of chemical weapons, including binary weapons, are proceeding at a precipitous pace.

Particularly dangerous are the concepts and doctrines aimed at using the achievements of scientific and technological progress for the unleashing of nuclear war.

Rapid improvement of nuclear weapons and of means to deliver them is being accompanied by the elaboration of strategic doctrines designed to justify the possibility of waging and winning a nuclear war. In this connection, they are invariably based on the concept of a nuclear first strike, reflected in particular in well-known directives and corresponding plans providing for the waging of "local", "limited", "rational", "protracted" or "generalized" nuclear wars.

However, nuclear warfare is not just a joint exercise, not a game with known rules and limitations; given the physical properties themselves of nuclear weapons and the consequences of their use, such warfare would turn into a gigantic chain reaction and become the most tremendous all-consuming catastrophe in the history of human civilization.

In view of the growing threat of thermonuclear war, historic responsibility for the fate of humanity and of life on Earth demands that the United Nations and all States take urgent steps to guarantee the most important of rights - the right to life.

From the first appearance of the atomic bomb, the Soviet Union has consistently sought to ensure that nuclear weapons would never be launched and that the first and foremost human right, the right to life, would be implemented in practice. An eloquent manifestation of this policy is the adoption by the Soviet Union of the historic obligation not to be the first to use nuclear weapons. It is on the initiative of our country that the United Nations General Assembly has resolutely condemned, unconditionally and forever, nuclear war as the most monstrous of the crimes that can be perpetrated against peoples; it has declared as criminal acts the elaboration, advocacy, dissemination and propagandizing of political and military doctrines and concepts designed to justify the "legitimacy" of first use of nuclear weapons and in general the "admissibility" of unleashing nuclear war.

There is no type of arms that our country would not be willing to limit or prohibit on a reciprocal basis. We are principled opponents of competition in the production and stockpiling of weapons of mass destruction. That path is not ours, for it cannot lead to the solution of a single problem confronting mankind: economic development of States, protection of the environment, creation of the most elementary conditions for the life of people - their food, health and education. At a time when some 800 billion dollars a year are being spent on arms, 400 million people in the developing countries are constantly undernourished, 100 million children are threatened with death because of poor food and insufficient vitamins, and 30 per cent of children have no opportunity to attend school.

The resources being swallowed up by the arms race should be used not for producing weapons to kill people, but in the interests of solving social and economic problems and of improving the well-being of peoples. Peoples of all countries, including of course the developing countries, would gain from the rechannelling of these resources to peaceful ends. It would open the prospect of allocating considerably more substantial funds than at present to assistance in eliminating the backwardness inherited by these countries from colonial times.

The Soviet Union has consistently advocated placing the results of scientific and technology progress at the service of the cause of peace and of the freedom and independence of peoples, and not using the achievements of science and technology for purposes of aggression and interference in the internal affairs of sovereign States, to the detriment of the economic and social development of peoples and human rights and fundamental freedoms.

It is towards this use of scientific and technological progress that the efforts of the international community have been directed by decisions adopted on the initiative of the Soviet Union: the 1975 Declaration on the Use of Scientific and Technological Progress in the Interests of Peace and for the Benefit of Mankind, General Assembly resolutions 37/189, 38/113 and 39/134, resolutions of the Commission on Human Rights 1982/7, 1983/43 and 1984/28, and other resolutions in this field.

We are firmly convinced of the need for the most speedy implementation by all States of these most important United Nations decisions concerning the use of scientific and technological progress in the interests of peace and the benefit of mankind, since their purpose is to preserve peace and to defend the most primordial and inalienable right - the right to life itself.

The question of preserving peace, preventing nuclear catastrophe and ensuring the right to life is the key question for first testing a government's real attitude to human rights. Today, Lenin's words sound more timely than ever: "The greatest manifestation of democracy is on the basic question of war and peace". One cannot preach human rights and at the same time proceed on the premise that it is acceptable to destroy hundreds of millions of human beings, all human civilization, in the fires of a nuclear conflagration. Respect for human beings and planning for nuclear war, intensifying the danger of war, are incompatible and mutually exclusive.

No differences in social structure, way of life or ideology, no immediate interests can overshadow the fundamental need, common to all peoples, to safeguard peace and prevent nuclear war.

The most important task of the United Nations is to save our planet from the danger of thermonuclear war, to preserve peace and thereby to ensure the rights of all peoples and individuals to life. The present alarming situation in the world dictates the need for taking real steps to ensure that the results of scientific and technological progress are used exclusively in the interests of international peace and for the benefit of mankind, for the economic, social and cultural development and well-being of peoples. It is in this main direction, in our profound conviction, that the efforts of the international community must be concentrated.

United Kingdom of Great Britain and Northern Ireland

[Original: English]
[8 January 1985]

The Government of the United Kingdom of Great Britain and Northern Ireland attach particular importance to this issue and are firmly of the view that, wherever feasible, advances in science and technology should be placed at the service of furthering human rights and fundamental freedoms.

The United Kingdom regard it as appropriate for the Commission on Human Rights to continue to consider the subject of human rights and scientific and technological developments and believe that, as the issues cited in the recommendations of the international experts are more related to the mandate of other bodies such as the Population Commission, they should be referred to those bodies.

Venezuela

[Original: Spanish]
[8 January 1985]

The comments made by the Government of Venezuela were reproduced in the Secretary-General's report "Human Rights and Scientific and Technological Developments" submitted to the General Assembly at its fortieth session and may be found in document A/40/493/Add.1.

III. Replies from organs of the United Nations system

United Nations Environment Programme

[Original: English]
[5 October 1984]

UNEP stated that it had no views on the resolution 1984/30 that should be presented to the Commission on Human Rights at its forty-second session.

IV. Replies from specialized agencies

International Fund for Agricultural Development

[Original: English]
[8 November 1985]

The comments made by the IFAD were reproduced in the Secretary-General's report "Human Rights and Scientific and Technological Developments" submitted to the Commission on Human Rights at its forty-second session and may be found in document E/CN.4/1986/27.

United Nations Industrial Development Organization

[Original: English]

[8 October 1984]

The United Nations Industrial Development Organization stated that UNIDO's views on the subject may be found in the following two documents */ which had been discussed and adopted at the Fourth General Conference of the United Nations Industrial Development Organization, Vienna, 2-19 August 1984:

(a) Strengthening of scientific and technological capacities for industrial development in developing countries: ID/CONF.5/36, 19 July 1984;

(b) Strengthening of scientific and technological capacities for industrial development in developing countries: ID/CONF.5/C.2/L.13, 17 August 1984.

World Bank

[Original: English]

[10 July 1984]

The World Bank stated that all technical and financial assistance from the World Bank to its member countries was provided with the sole purpose of improving the economic well-being of peoples in those countries.

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*/ These documents are available for consultation in the files of the United Nations secretariat at Geneva.

V. Annex

The full text of the statement, adopted by the group of experts on the question of "The balance which should be established between scientific and technological progress and the intellectual, spiritual, cultural and moral advancement of humanity" (E/CN.4/1199 of 2 February 1976, para. 4).

"1. The scientific and technological progress of mankind is an essential part of human intellectual, spiritual, cultural and moral advancement. What is necessary is to see the interconnection and interdependence between them, that is to say the way in which they influence one another. Certain specific scientific and technological advances such as those listed in paragraph 5 below do pose risks to individual human rights, the welfare of society or the global condition of mankind.

2. Whereas scientific and technological progress is a motive force in human advancement, the choice of values, objectives and goals - in other words, the direction of advancement sought by a particular society at a particular time - is not inherent in the nature of science and technology. It derives largely from the emotional, cultural and ethical aspects of human life. A true integration of scientific and technological progress in the life of a people, therefore, depends on the completeness of its mutual relationship with other intellectual, spiritual, cultural and ethical standards and goals.

3. A thorough revision of education at all levels is required to bring about a sufficient harmony of science and technology with other human activities. Science and technology must be taught in the context of the ascent of Man, not primarily as potential contributors to the disruption of society or the depersonalization of individual lives. A proper understanding of science and its impact on society is essential for dealing adequately with the evolving problems of civilization.

4. Not every change or development that science and technology make feasible needs to become an actuality. Governments and societies must determine by appropriate mechanisms for technological asses ment - including the assessment of possible side effects and long-range effects - whether the time is right for particular innovations and whether their advantages outweigh for the society the discernible disadvantages. International machinery should be entrusted with such a technological assessment for mankind as a whole. It is a basic human right to have a voice in such decisions. Decisions in such matters must be made on the basis of the considered opinion of bodies of experts and laymen who represent the interests of all the people as well as of future generations.

5. With these ideas in mind, and taking into account the necessity for keeping under constant review the promotion and protection of human rights in the light of rapid scientific and technological developments, the Group recommends that consideration be given to the possibility of drafting a declaration on human rights and scientific and technological developments. Among the topics which would be covered by the declaration, the Group recommends especially the following:

Population planning (quantitative and qualitative) in relation to the right to found a family; protection against the hazards of the use of atomic energy; human experimentation; implications of new biological and medical discoveries (e.g. (a) tissue and organ transplantation and the use of artificial organs, (b) genetic manipulation of microbes, and (c) potential modifications of human genome); modification of mental processes by medical means; the social and ethical implications of the extension of life and of new definitions of and attitudes to death, and social and ethical choices in relation to equality in the provision of health protection and medical care.

6. It is recommended that a better definition be given of the duties of the individual to the community and of the rights of future generations. For example, it seems to us that the crisis in growth of the world's population must lead to some constraint on the individual right to reproduce, and that the right of the child to be born physically and mentally sound takes precedence over the rights of parents to reproduce."